Date: Mon, 18 Oct 93 17:02:43 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1240
To: Info-Hams

Info-Hams Digest Mon, 18 Oct 93 Volume 93 : Issue 1240

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 18 Oct 1993 18:38:01 +0100
From: mcsun!sun4nl!hacktic!not-for-mail@uunet.uu.net
Subject: 4Y (ICAO callsign). How to get one?
To: info-hams@ucsd.edu

Hello all

I am working at an air-traffic control center, and with a few fellow
radio-hams we were thinking of erecting a amateur-radio club. Since we are
a member of ICAO, I was wondering if it's possible to get a ICAO callsign

for the club. So, who can get these callsigns? Only ICAO employees, or
ICAO members as well?

Could anybody help me please? Thanks in advance.

73 de Martin, PE1EEC
--

"I-Man satta on the mountain top.	Name : Martin Heffels
Watching Babylon burning red hot"	e-mail : zap@hacktic.nl
- War inna Babylon, Max Romeo -	air-mail: pe1eec@pi8jop.nld.eu
 ----

Date: Mon, 18 Oct 1993 18:13:08 GMT
From: newsflash.concordia.ca!hobbit.ireq.hydro.qc.ca!macjc.ireq.hydro.qc.ca!
castonj@uunet.uu.net
Subject: Balloon high altitude test test
To: info-hams@ucsd.edu

Hi every body,

We are planning to launch a high altitude balloon at the end of October,
in the Montreal area. We are looking for some practical informations
from experienced participants involved in similar tests, regarding
the effects of very low temperature on equipments and especially
batteries.

We have a relatively limited experience in this kind of endeavor.
Six weeks ago, we launched a balloon with quite satisfactory results,
in terms of distant communication. However, due to high wind (I
think), the elevation vas slower and the radio systems were exposed
for long time to low temperatures. The repeater failled, probably
due to the failure of the Lithium batteries which could not maintained
the proper voltage to the radio and controler... The equipment did not
started to work again during the descent and the landing (after warm up)
... and was lost to heaven!!!

For the next experience, we have planned to use a separated beacon. Also,
all three pieces of equipment (beacon, rcvr and xmtr) will be energized
by individual batteries. We are now looking for some advices and comments
regarding general practical aspects of balloon launch, and in particular:
low temperature performances of batteries, (best type to use), and radio,
effects of low air pressure (reduction of the dielectric insulation level.

Here are some characteristics of the equipment:
beacon : small and low power (10 mW) oscillator module

rcvr   : receiver use in pagette
xmtr   : Motorola (exciter) 1 watt that will be limitted to 0.5 W

I thank you for any valuable information that you may think off.
You may send it directly to my E-Mail address bellow.

jacques..

  ____
 / Jacques Castonguay (chercheur) \ /   castonj@ireq.hydro.qc.ca   \
 \ IREQ Hydro-Quebec   / \   ve2esm@ve2csc.pq.can.na   /
 / 1800 Montee Ste-Julie   \ /   \
 \ Varennes, Quebec, CANADA   / \   Tel: (514) 652-8393   /
 /   J3X 1S1   \ /   Fax: (514) 652-8962   \
 _________________________________/_______________________________/

Date: Mon, 18 Oct 1993 16:11:14 GMT
From: newsflash.concordia.ca!hobbit.ireq.hydro.qc.ca!barde!vaillan@uunet.uu.net
Subject: Coaxial cable trap for my HF 80-40 meters dipole
To: info-hams@ucsd.edu

Coaxial cable trap for my HF 80-40 meters dipole.

I would like to build the traps shown in the 16th edition of
the ARRL Antenna Book on page 7-9.

For the construction, they give the reference to an article in
QST Dec 84 page 37 by N4UU. I don't have this QST.

If you have this QST, can you post here the dimensions
and the number of turns to make a 7.1 Mhz trap. I would
like to use a core of plastic pipe 2" O.D.

Any other details or suggestions are welcome. If you have made them,
how do you like them?

73, Clem.
VE2HQJ

   Clement Vaillancourt, | Institut de Recherche d'Hydro-Quebec
   Analyste, | Varennes, P. Quebec, Canada, J3X 1S1
   Informatique scientifique | Tel:+1 514 652 8238 Fax:+1 514 652 8309
   vaillan@ireq.hydro.qc.ca | Radio-amateur: VE2HQJ@VE2CRL.PQ.CAN.NA

Date: Mon, 18 Oct 1993 19:17:52 GMT
From: world!rbarnaby@uunet.uu.net
Subject: FCC is on the ball- License Timing
To: info-hams@ucsd.edu

For those counting days:
Exam: 09/18/93
Effective date 10/12/93
Date on Envelope 10/16/93
Received Ticket 10/18/93

Richard L. Barnaby KD1RU (AA1?? Pending)
rbarnaby@world.std.com

Date: 18 Oct 93 20:00:30 GMT
From: haven.umd.edu!cville-srv.wam.umd.edu!ham@uunet.uu.net
Subject: FCC is on the ball- License Timing
To: info-hams@ucsd.edu

In article <CF3xLt.73u@world.std.com>,
Richard L Barnaby <rbarnaby@world.std.com> wrote:
>
>For those counting days:
>Exam: 09/18/93
>Effective date 10/12/93
>Date on Envelope 10/16/93
>Received Ticket 10/18/93
>
Do you know who's to blame?

<Flames extinguished by fire-retardant foam...>

    All of those people who waited until their study manuals were ALMOST
out of date before taking their exams. The influx of exams at the FCC
was, in fact, overwhelming and the delay was NOT unexpected. I am VERY
glad to have all of these hams in the ranks. WELCOME to you all.

And Kudos to the FCC for finally getting the mess under control!

Scott NF3I

--
73,   _________   _________ The

Date: Mon, 18 Oct 1993 18:12:02 GMT
From: dog.ee.lbl.gov!agate!spool.mu.edu!uwm.edu!linac!att!att!bigtop!longs!
n2ic@network.ucsd.edu
Subject: Ham Wins Nobel Prize !
To: info-hams@ucsd.edu

Credit for the following goes to Dave Sumner, K1ZZ ....

Subj: QST Author Makes Good

Back in the late 1950's there were two brothers, Joe, K2ITP and Hal, K2ITQ, in Riverton, NJ. Together they built a competitive VHF contest station with which, among other things, they set a record for QSO's and total score in the 1958 VHF Sweepstakes. In fact, they were so successful that Joe wrote and article for December 1958 QST entitled " Working Ionospheric Scatter on 50 MHz." or "DX when the Band is Dead." Joe was 17 years old at the time.

Fast forward to 1993. The news from Sweden is that the Nobel Prize Committee has awarded the physics prize to two astrophysics reseachers for their 1974 work with pulsars , using the Arecibo dish. The researchers are Dr. Joseph Taylor, Jr. and his (then) graduate student, Russ Hulse.

Dr Joseph Taylor, now K1JT, is ex K2ITP. And he's happy to tell reporters that it was his early interest in Amateur Radio that led him to a career in physics.

By the way, the late Sam Harris, W1FZJ, past QST VHF columnist, and Hank Cross, W1OOP, were among those on the Arecibo staff who assisted with the 1974 experiments.

There is a picture of young Joe Taylor in April 1958 QST, page 66, in the VHF contest results.

You know that guy who keeps whining that contesters are a blight on humanity who never do anything worthwhile? Gee, maybe he's right....

73, K1ZZ Dave.

Date: Mon, 18 Oct 1993 17:50:11 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
usenet.ins.cwru.edu!news.ecn.bgu.edu!siemens!dep@network.ucsd.edu
Subject: HDN Releases
To: info-hams@ucsd.edu

In <750928601.F00002@ocitor.fidonet> Lee.Laird@f7009.n124.z1.fidonet.org (Lee
Laird) writes:

>The following files were processed Sunday 10-17-93 at 1:124/7009:

>HAMNEWS   [HAM: Bulletins and Newsletters]
>---
>ANART779.LZH (4662 bytes) ANART Bulletin 779 10/03/93
>ARLB103.LZH (694 bytes) ARRL Bulletin 10/07/93
>ARLD053.LZH (1355 bytes) ARRL DX Bulletin 10/07/93
>ARLD054.LZH (414 bytes) ARRL DX Bulletin 10/14/93
>ARLP040.LZH (981 bytes) ARRL Propagation Bulletin 10/08/93
>RTDX1008.LZH (2126 bytes) RTTY DX Bulletin 10/08/93

>---
>   10232 bytes in 6 file(s)

>HAMSAT   [HAM: Satellite tracking and finding programs]
>---
>OBS281.LZH   (2974 bytes) Amsat Orbital Elements # 281
>   10/08/93

>---
>   2974 bytes in 1 file(s)

> Total of 13206 bytes in 7 file(s)

>Files are available via Anonymous-FTP from ftp.fidonet.org
>IP NET address 140.98.1.1

>   Directories are:
>   pub/fidonet/ham/hamnews (Bulletins)
>   /hamant   (Antennas)
>   /hamsat   (Sat. prg/Amsat Bulletins)
>   /hampack (Packet)
>   /hamelec (Formulas)
>   /hamtrain (Training Material)
>   /hamlog   (Logging Programs)

>   /hamcomm (APLink/JvFax/Rtty/etc)
>   /hammods (Equip modification)
>   /hamswl   (SWBC Skeds/Frequencies)
>   /hamscan (Scanner Frequencies)
>   /hamutil (Operating aids/utils)
>   /hamsrc   (Source code to programs)
>   /hamdemo (Demos of new ham software)
>   /hamnos   (TCP/IP and NOS related software)

>Files may be downloaded via land-line at (214) 226-1181 or (214) 226-1182.
>When ask for Full Name, enter: Guest;guest   <return>
>
>lee - wa5eha
>Ham Distribution Net
> * Origin: Ham Distribution Net Coordinator / Node 1 (1:124/7009)

Date: 18 Oct 93 19:47:45 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: idea for ground radials
To: info-hams@ucsd.edu

P.Lucas@mail.nerc-swindon.ac.UK wrote:

: Just out of interest, how deep does the RF current penetrate into the surface
: of the material? Is it a constant, or a function of current density, or
: frequency?

The current decreases exponentially with depth into the conductor.
The depth at which the current is 37% of the surface current density is
called the "skin depth," and has the property that if you calculate the
DC resistance of that thick a layer, you get the RF resistance, assuming
that the actual conductor is several times that thick. The greater the
conductance, the smaller the skin depth, but it goes as a square root
function, so if you double the conductivity, you get .707 times the
skin depth: in other words, you only gain half of what you might have
hoped for in decreasing the resistance that way. The skin depth is
independent of current density, at least at densities used by most
mortals...

The depth is 2.6 mils at 1MHz in copper, and goes inversely with the
square root of frequency, so it's 1.3 mils at 4MHz, .26 mils at 100MHz,
08 mils at 1000MHz, etc.

(All this offers a clue about how to make coaxial cable that has
constant loss vs frequency over some frequency range: make the
center conductor thickness small compared to the skin depth at the

highest frequency of interest--like, make the center conductor
be a thin foil or plating on an insulating core.)

Date: 18 Oct 93 19:20:17 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: MulitBand Antennas cont'd
To: info-hams@ucsd.edu

Gary Coffman (gary@ke4zv.atl.ga.us) wrote:

: I don't know what edition of the Handbook you're consulting, but
: the chart in *my* 1992 Handbook, figure 25 page 16-15, only gives
: one solution for a given input SWR and a given matched line loss.
: The equations from which it is derived are given in The ARRL Antenna
: Book, fifteenth edition, as equations 12, 13, 14, and 15 on page
: 24-14. Equation 12 is the one of interest to your complaint. It
: is

: Sl=(A+B)/(A-B) where Sl is the load end SWR and A and B are
: defined below

: A=(Si+1)/(Si-1) where Si is the input end SWR

: B=10^Lm/10 where Lm is the coax line loss *if it were matched*,
:   IE the common table loss figure.

: So as you can see, the load end SWR can be completely and uniquely
: determined by knowing the input end SWR and the matched line loss
: which you can either pre-measure, or look up in a table.

Some support for Gary on this ;-)

If you don't like looking up line loss in a table (it can indeed be
a bit misleading), just short the "load" end and measure the SWR.
Assuming you can do that accurately, then Gary's equations can be
manipulated to tell you that

  Lm = 10 log ((Si+1)/(Si-1))

(I'm assuming there was a little typo in Gary's equation for B and
it should be "B = 10^(Lm/10)"   ...)

If you have a meter that measures forward and reflected power
directly, then the line loss is simply 5 log (Pf/Pr) -- the
5 instead of 10 because you are accounting for loss going out
and coming back, which is twice the dB loss of one way.

One problem with this technique: if your line loss is even moderate,
the resolution you have by making you measurements at the generator
end of the line can be drastically reduced: an infinite SWR at the
load end of a line with 3dB loss yields about a 3:1 SWR at the
generator end. So you've condensed the range from 1:1 to infinity
at the load to 1:1 to 3:1 at the generator end. Things are probably
fine, though, if your line loss is in the 1dB region, where you'd
measure a max 8.7:1 SWR at the generator end, for an infinite
SWR at the load end.

: Note that only components of input end SWR and matched line loss
: are needed to obtain total loss. That's because load end SWR is
: uniquely defined by those same components.

(assuming a line of uniform impedance...)

As Cecil points out, what the load (antenna??) actually does with
the power it takes from the line is another matter completely.

Date: 18 Oct 93 19:27:58 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: Need 16key touch tone pad
To: info-hams@ucsd.edu

phil reed (pcr@vnet.ibm.com) wrote:
: In <1993Oct14.113042.1670@ke4zv.atl.ga.us>, gary@ke4zv.atl.ga.us (Gary Coffman)
writes:
: > ...
: >You'll find a suitable pad as close by as the nearest WE500 desk telephone.
: > ...
: >Gary
: >--
: >Gary Coffman KE4ZV |"If 10% is good enough | gatech!wa4mei!ke4zv!gary
: >Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
: >534 Shannon Way | enough for Uncle Sam."| emory!kd4nc!ke4zv!gary
: >Lawrenceville, GA 30244 | -Ray Stevens |

: Great! Thanks. But, what about tones A-D?

: If no other option appears, then this is what I'll do and I'll let A-D go.
: But, it would be nice to have them.

The older WE phones, as far as I know, use LC oscillators to generate the
tones. These may be fine, but certainly are not as stable as crystal-

controlled ones. We surplussed a number of phones here that had 12 key pads controlling a Mostek chip. Though the pad is quite reliable, it is only 12 keys. But I've found 16 key pads with the "2 of 8" closures pretty common on the surplus market, and hooking one of these to the Mostek chip was easy, as it probably is to most any DTMF generator chip. I suspect that almost all the chips have key inputs for all 4 rows and all 4 columns, though most pads (i.e. for phones) only use 3 columns.

Date: 18 Oct 1993 23:46:10 GMT
From: nothing.ucsd.edu!brian@network.ucsd.edu
Subject: Need 16key touch tone pad
To: info-hams@ucsd.edu

Most of the Telco dials will generate all four columns of tones, even if they only have 12 buttons. Trick is to add a spdt switch to change the third column to the fourth column when needed. Sure, it's not as convenient as a real 16-button dial, but when you have to compromise, it works.
     - Brian

Date: 18 Oct 93 19:48:55 GMT
From: ogicse!uwm.edu!spool.mu.edu!agate!news.ucdavis.edu!othello.ucdavis.edu!ez006683@network.ucsd.edu
Subject: Newsline #842
To: info-hams@ucsd.edu

Jeff Herman (jherman@uhunix3.uhcc.Hawaii.Edu) wrote:
: behavior. Many states still have anti-sodomy laws on the books; why should
: QST or any other magazine be forced to advertise a special interest group
: who's actions clearly violate the law's of a state in which the magazine is
: being sold?

Does this include sdcanner modification publishers who publish cellular mods? an activity which is illegal in ALL states! Or does this only apply to actions which are illegal AND you dislike?

73
Dan
--
--
* Daniel D. Todd   Packet: KC6UUD@WA6RDH.#nocal.ca.usa   *
*   Internet: DDTODD@ucdavis.edu   *
*   Snail Mail: 1750 Hanover #102   *
*   Davis CA 95616   *

--
*   I do not speak for the University of California....   *
*   and it sure as hell doesn't speak for me!!   *
--

Date: 18 Oct 93 22:42:06 GMT
From: mulvey!rich@uunet.uu.net
Subject: Newsline #842
To: info-hams@ucsd.edu

Daniel D. Todd (ez006683@othello.ucdavis.edu) wrote:
: Jeff Herman (jherman@uhunix3.uhcc.Hawaii.Edu) wrote:
: : behavior. Many states still have anti-sodomy laws on the books; why should
: : QST or any other magazine be forced to advertise a special interest group
: : who's actions clearly violate the law's of a state in which the magazine is
: : being sold?

: Does this include sdcanner modification publishers who publish cellular
: mods? an activity which is illegal in ALL states! Or does this only
: apply to actions which are illegal AND you dislike?

   It's not illegal to modify the scanner to receive cellular - it *IS*
illegal to listen. There's a subtle but important difference. :-)

- Rich

--
Rich Mulvey   Amateur Radio: N2VDS   Rochester, NY
rich@mulvey.com   "Ignorance should be painful."

Date: 18 Oct 93 21:20:16 GMT
From: ogicse!uwm.edu!math.ohio-state.edu!sdd.hp.com!col.hp.com!srgenprp!
alanb@network.ucsd.edu
Subject: Please help identify this part
To: info-hams@ucsd.edu

Ken Steiglitz (ken@hart.Princeton.EDU) wrote:
: Can you identify this:

: It's a black plastic (bakelite?) adapter about
: 1"x2"x2.4", with two miniature tube sockets on
: top, each holding a 12AX7 miniature (9-pin)
: vacuum tube (each a twin-triode). At the base

: there's an octal socket. ...

: On the other it says
: "Made in U.S.A. By
:   George A. Philbrick Researches, Inc.   ...

I suspect it's an operational amplifier. I know that Philbrick
made op-amp modules back in the tube days.

AL N1AL

Date: 18 Oct 93 23:13:25 GMT
From: sequent!muncher.sequent.com!edw@uunet.uu.net
Subject: Please help identify this part
To: info-hams@ucsd.edu

I would vote for op-amp, although I have used flip flops that were
made like that too !
--
 I think I've got the hang of it now .... :w :q :wq :wq! ^d X exit ^X^C ~.
 ^[x X Q :quitbye CtrlAltDel   ~~q :~q logout save/quit :!QUIT ^[zz ^[ZZ
 ZZZZ ^H ^@ ^L ^[c $q ^# ^E ^X ^I ^T ? help helpquit ^D ^d ^C ^c help
 ^]q exit ?Quit ?q anybackbone!sequent!edw edw@sequent.COM KA9AHQ 28.340

Date: 18 Oct 93 16:55:04 GMT
From: haven.umd.edu!cs.umd.edu!skates.gsfc.nasa.gov!aol12!mitchell@uunet.uu.net
Subject: Reciprocol agreements with other countries
To: info-hams@ucsd.edu

Does anyone know if Ecuador has a reciprocol license agreement with
the U.S. for amature radio and/or how one goes about getting
permission to operate there? How much lead time should does
someone need when doing this?

Thanks!

--
Richard Mitchell |
mitchell@aol12.wff.nasa.gov |
N3LNK |

Date: 18 Oct 93 18:32:30 GMT

From: ogicse!uwm.edu!linac!att!cbnewsm!jeffj@network.ucsd.edu
Subject: Transmission Line Losses
To: info-hams@ucsd.edu

In article <kg7bk.750910963@indirect.com> kg7bk@indirect.com (Cecil Moore) writes:
>>Note that only components of input end SWR and matched line loss
>>are needed to obtain total loss. That's because load end SWR is
>>uniquely defined by those same components.
>>Gary Coffman KE4ZV
>
>Gary, my point is that "matched line loss" is almost always an assumption,
>not a measurement. I use 9913 coax on my uhf antenna and got S9 reports

What exactly is "matched line loss"? I saw it in the ARRL Antenna Handbook
and never did quite get a grip on it. 73!

Jeff

--
 Jeff Jones AB6MB | OPPOSE THE NORTH AMERICAN FREE TRADE AGREEMENT!
 jeffj@seeker.mystic.com | Canada/USA Free Trade cost Canada 400,000 jobs.
 Infolinc BBS 510-778-5929 | Want to guess how many we'll lose to Mexico?

Date: Mon, 18 Oct 1993 18:18:58 GMT
From: munnari.oz.au!spool.mu.edu!howland.reston.ans.net!usc!elroy.jpl.nasa.gov!
swrinde!menudo.uh.edu!uuneo!sugar!sfarlow@network.ucsd.edu
To: info-hams@ucsd.edu

References <CF2nMH.K05@murdoch.acc.Virginia.EDU>, <CF2xps.16K@news.Hawaii.Edu>,
<29ufitINNirh@network.ucsd.edu>menu
Subject : Re: BESTIALITY AMATEUR RADIO FRATERNITY (BARF)

WHAT IN THE WORLD DOES THIS HAVE TO DO WITH AMATEUR RADIO ?
IS SEXUAL PERVERSION CREEPING INTO IT NOW ???

End of Info-Hams Digest V93 #1240
****